

REMARKS

The applicant respectfully requests reconsideration of claims 31-32, 40-46, 66-68 and 76 in view of the foregoing amendment.

A. The September 30, 2003 amendment is subject to an objection under 35 U.S.C. 132 for allegedly introducing new matter.

The action identifies the alleged new matter as "Figure 7 and any supporting language added to the specification." The nature of the alleged new matter has not been identified in any greater detail.

In the present amendment, the reference to Figure 7 on page 6 has been changed to provide that Figure 7 shows a stent similar to that in Figure 3, but with increased densities of elevations at its ends. Page 8 has been amended to repeat an earlier reference in the text providing that an annular elevation pattern 12 near the proximal and distal ends 4 and 5 can reduce the debraiding tendency in a stent. Figure 7 further is said to show a stent of a type shown in Figure 3, but with annular elevation patterns 12 near the proximal and distal ends 4 and 5.

It is well settled that subject matter taught by any one of the original specification, claims, and drawings, is not to be construed as new matter. The amendments to the text associated with Figure 7 are supported by the original disclosure. Reference is made to the present specification on page 3, beginning at line 27:

More dense distribution of the elevations at the proximal and distal ends of the stent will provide higher stability at these areas for better anchoring thereof with the tissue of the body vessel. This embodiment is preferred if the stent is to be implanted in ostium positions for a safe fixation of the stent ends in order to prevent migration of the stent and disturbing for example the blood flow into a side branch through this ostium. Another preferred application of such a stent is the support of a vessel having a hard plaque stenosis whereby the stent comprises a higher density of elevations in the stenotic region.

In U.S. Patent No. 6,652,577, this same paragraph is found in Column 2, beginning at line 66.

The present specification also provides, on page 4 at lines 18-19, that the elevations may also be formed annularly on the tubular wall. See the '577 Patent at Column 3, lines 29-31.

The specification further provides, on page 7 beginning at line 15:

Another possibility of providing elevations for stents according to the present invention is shown in Figure 3, where the stent having annular pattern of outwardly formed elevations 12 which are equidistant and parallel to each other. Here also the stability of the stent has been improved over the well-known stents. If an annular pattern of elevations 12 will be provided near the proximal and distal ends 4 and 5 the tendency of debraiding of the wires 2 and 3 can be reduced further.

See also the '577 Patent at Column 5, beginning at line 28.

Based on the above, it is clear that the text added by the present amendment with reference to Figure 7 merely restates subject matter already present. As for the figure itself, Figure 7 - like Figure 6 added in the parent application - merely represents pictorially what is stated in the original text. Specifically, Figure 7 shows patterns of elevations 12 near the proximal and distal ends 4 and 5 of a braided tubular wall 1.

Accordingly, the objection to Figure 7 and its associated text is respectfully traversed. The examiner is requested to specifically point out, in connection with Figure 7 and the associated text, the content believed to be new matter. Otherwise, the applicant respectfully requests that this objection be withdrawn.

B. Claims 31-32, 40-46, 66-68 and 76 stand rejected under the judicially created doctrine of obviousness-type double patenting, as allegedly unpatentable over all claims U.S. Patent No. 6,652,577 and U.S. Patent No. 5,993,483.

In connection with this rejection, it is asserted that the conflicting claims of the application and the '577 and '483 patents are not patentably distinct from each other because the patented claims allegedly anticipate the claims subject to this rejection. The applicant, respectfully, does not acquiesce in this assertion. However, the term of a patent issued on this application would be set to end concurrently with the terms of the '577 and '483 patents, based on the priority date asserted. Accordingly, the filing of a terminal disclaimer is acceptable in light of its negligible impact on the patent term.

Accompanying this amendment is a terminal disclaimer, signed on behalf of the owner of U.S. Patent No. 6,652,577 and U.S. Patent No. 5,993,483 and the present application.

Accordingly, it is submitted that these claims no longer are subject to the double patenting rejection.

C. Claims 31-32, 40-46, 66-68 and 76 stand rejected under 35 U.S.C. 112, second paragraph, as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In connection with this rejection, the examiner has pointed out an alleged inconsistency (“conflict”) between independent claim 31 and dependent claim 34 with respect to the meaning of “pitch.”

Claim 34, however, has been withdrawn (and cancelled) from the application. With no claim 34 present in the case, there can be no conflict.

While the examiner identified no dependent claims associated with either claim 43 or claim 66 as providing the basis for the alleged conflict, it is presumed that the dependent claims involved would be claims 49, 71 and 75, all of which have been withdrawn and cancelled. Thus, with respect to independent claims 43 and 66, the Section 112 rejection likewise lacks any foundation in view of the absence of the allegedly conflicting claims from the application.

It is noted further that neither claim 43 nor claim 66 ascribes a “pitch” to the elevation pattern. Reference to a pitch of the elevation pattern is found in dependent claim 45.

For the foregoing reasons, the rejection based on Section 112 should be withdrawn. Further, should this rejection arise in the context of pending claims, the applicant reserves the right to traverse.

D. Claims 31-32, 40-41, 43-46, 66-68 and 76 stand rejected under 35 U.S.C. 102(e) as allegedly anticipated by U.S. Patent No. 5,725,547 (Chuter).

The Chuter patent discloses a corrugated stent composed of multiple individual “limbs, each arranged in a spiral from one end of the stent to the other.” The limbs do not have a uniform orientation or braid angle relative to the longitudinal axis of the stent. Instead, there are periodic variations between what Chuter describes as transversely oriented sections of the limbs and longitudinally oriented sections of the limbs. The transversely oriented limb sections are said to confer resistance to radial compression, while the limbs along the longitudinal sections are less flexible, but shorten little during stent expansion. The stent is said to have better (“more

forcible”) expansion characteristics because of the undulating bends of the individual limbs and the resulting additional force needed to straighten each limb to compress the stent. When the stent is expanded, rings formed by the transversely oriented sections of the limbs are wider than the rings formed by the longitudinally oriented sections of the limbs. See column 4 lines 3-40.

Regardless of the extent to which the Chuter patent can be said to disclose helically wound first and second wires, and regardless of the extent to which these wires can be said to be shaped to form elevations, these first and second wires are not wound at respective first and second pitches. Rather, each wire is wound alternately at a different pitches to provide alternating sections of more transversely oriented limbs and more longitudinally oriented limbs. See column 4 of the Chuter patent. Although the limbs are said to form spirals, they are not constant in pitch, as seen from the following passage:

However, unlike the Wallstent and other prior art stents, these limbs do not have a uniform orientation relative to the long axis of the stent, but rather bend back and forth as will be apparent from the schematic representation of Fig. 1. Consequently, the angle between the long axis of the limb and the long axis of the stent lumen is not constant, for any given stent diameter (column 4, lines 3-11).

As compared to more commonly used terminology in braided stents, the transversely oriented sections correspond to sections made with a steeper braid angle, and the longitudinally oriented sections correspond to sections with a more gradual braid angle, i.e. sections described in the present specification as “less shortening.” See page 2 of the specification at line 3, and page 3 at line 7.

In the braided tubular wall defined in claim 31, first wires are helically wound at a first pitch, and second wires are helically wound at “a second pitch different from the first pitch” (emphasis added). This feature is not shown in the Chuter patent. Chuter’s Figure 2 illustrates multiple limbs, yet none of these limbs has a “first pitch” or “second pitch” as claimed. Instead, each and every limb has alternating different pitches, i.e. is “undulating” between the longitudinal and transverse sections as described in Chuter.

Claims 32 and 40-42 depend on claim 31 and are patentable for the reasons given in support of claim 31.

Claim 42 is patentable, further, for the failure of Chuter to teach or suggest elevations arranged in a helical pattern on a braided tubular wall.

Claim 43 defines a tubular wall comprising first and second wires helically wound at respective first and second pitches. Accordingly, claim 43 is patentable for the reasons give in support of claim 31.

Claims 44-46 depend on claim 43 and are patentable along with claim 43.

Claim 66 has been appended to provide that the elevations are arranged in at least one helical elevation pattern on the tubular mesh wall. To whatever extent the Chuter patent might be said to teach the claimed elevations, there is no teaching or suggestion to arrange such elevations in a helical pattern. As perhaps best seen from Figure 1 of Chuter, the profile of the stent suggests circumferential or annular patterns. Accordingly, claim 66 is patentable over the Chuter patent.

Claims 67, 68 and 76 depend on claim 66 and are patentable along with claim 66.

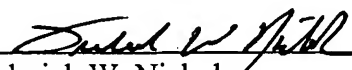
To summarize, claims 31-32, 40-46, 66-68 and 76 incorporate subject matter allowable over the prior art of record, and define that subject matter with clarity and precision in accordance with 35 U.S.C. 112, second paragraph. The present amendment contains no subject matter beyond that of the original disclosure, nor does the specification as amended.

Therefore, the applicant respectfully requests entry of the present amendment, and favorable consideration of the pending claims in view of that amendment.

Respectfully submitted,

Boston Scientific Scimed, Inc.

Dated: February 28, 2005

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CERTIFICATE OF MAILING

Pursuant to 37 CFR 1.8, I hereby certify that this Amendment in Application Serial No. 10/674,729 is being deposited with the U.S. Postal Service by first class mail, postage prepaid, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date of deposit indicated below.

Date of Deposit: February 28, 2005



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